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Sumsion

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(54) **IN-LINE CORD MANAGEMENT AND CLIP SYSTEM**

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H04R 25/00 (2006.01)
H04R 1/10 (2006.01)

(52) **U.S. Cl.**
CPC ***H04R 1/1033*** (2013.01)

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USPC ..... 381/381, 380, 370, 374, 182, 386, 379; 24/302–306, 16 PB; 224/666; D8/356
See application file for complete search history.

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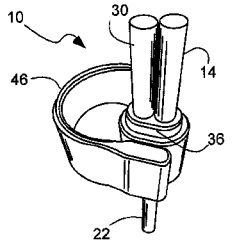
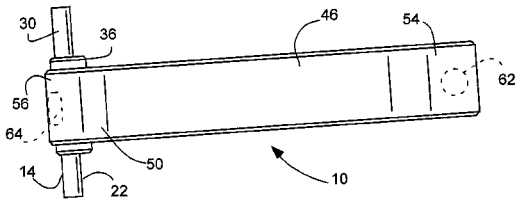
(57) **ABSTRACT**

A cord management system comprises a collar with a bore enclosing a portion of the cord. A flexible band extends from a proximal end at the collar to a distal free end. A free ferromagnetic button is embedded in the distal free end of the band. A fixed ferromagnetic button is embedded in the collar. The band forms a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the cord. The proximal end of the band can extend from one side of the collar, and the fixed ferromagnetic button can be disposed in the collar on another side of the collar opposite the proximal end of the band.

23 Claims, 9 Drawing Sheets





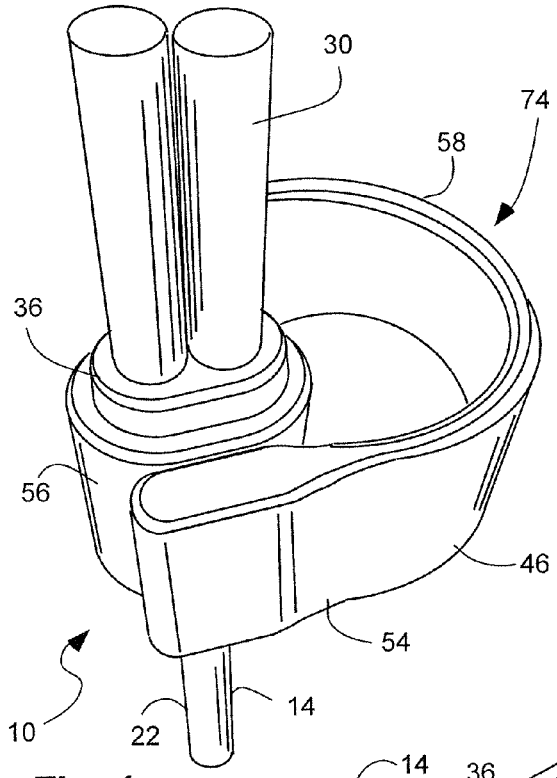


Fig. 1a

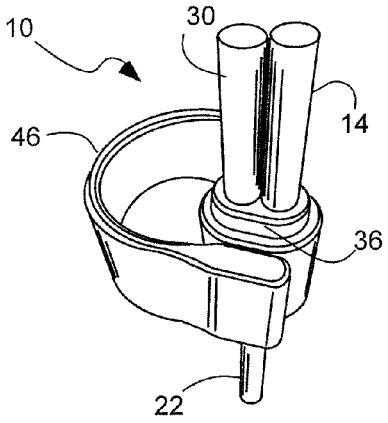


Fig. 1b

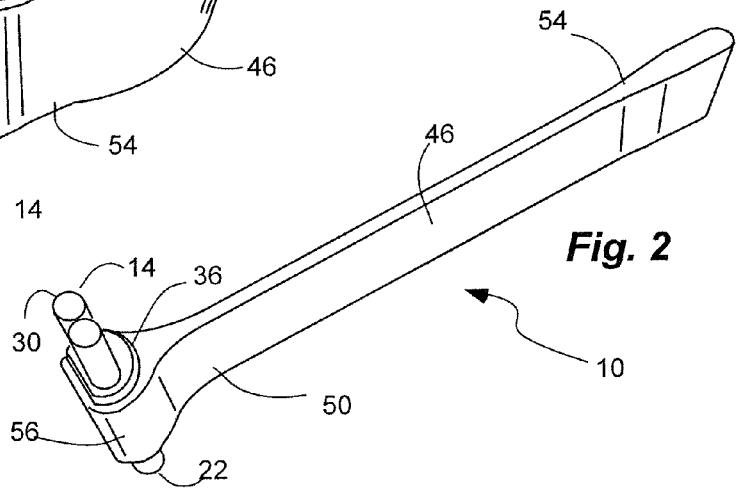


Fig. 2

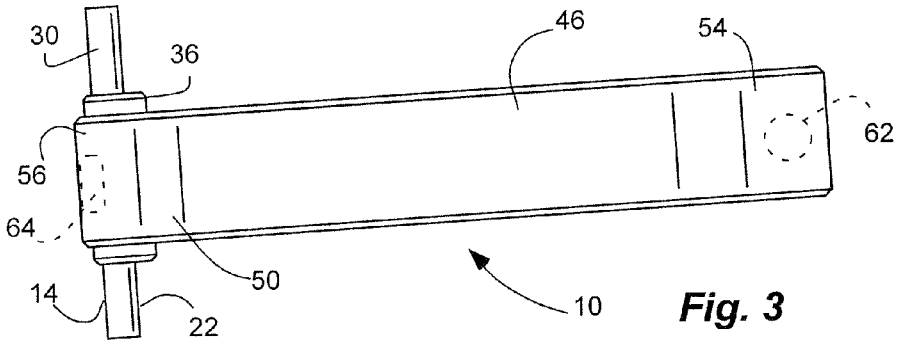


Fig. 3

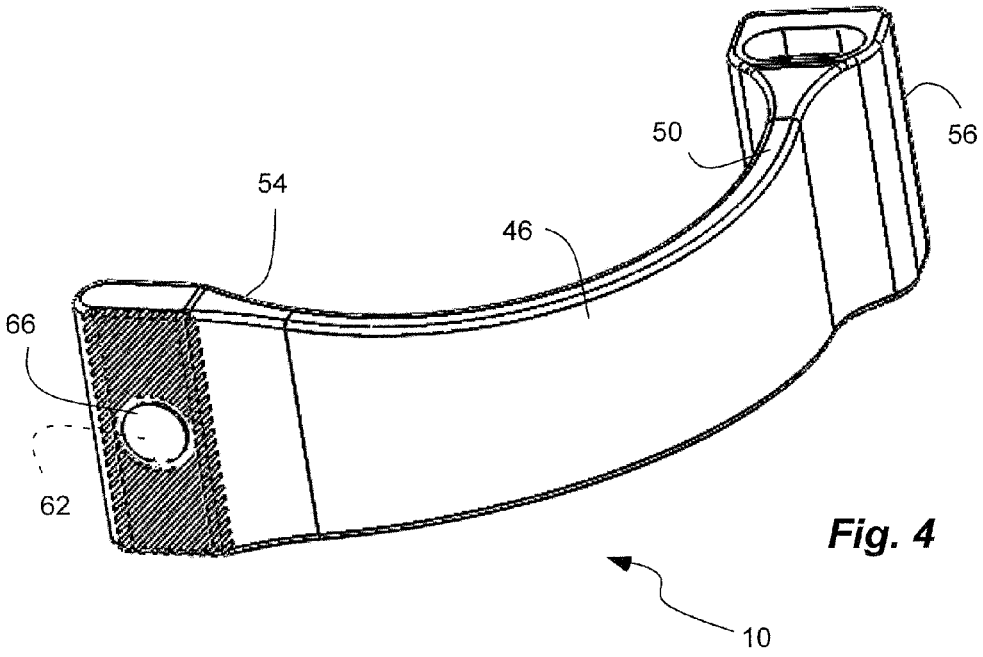
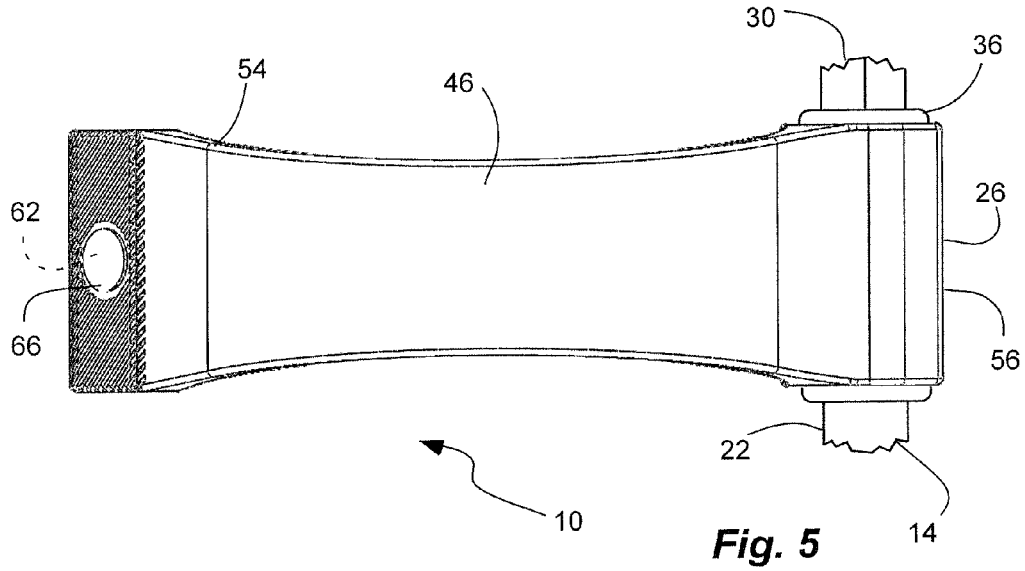


Fig. 4



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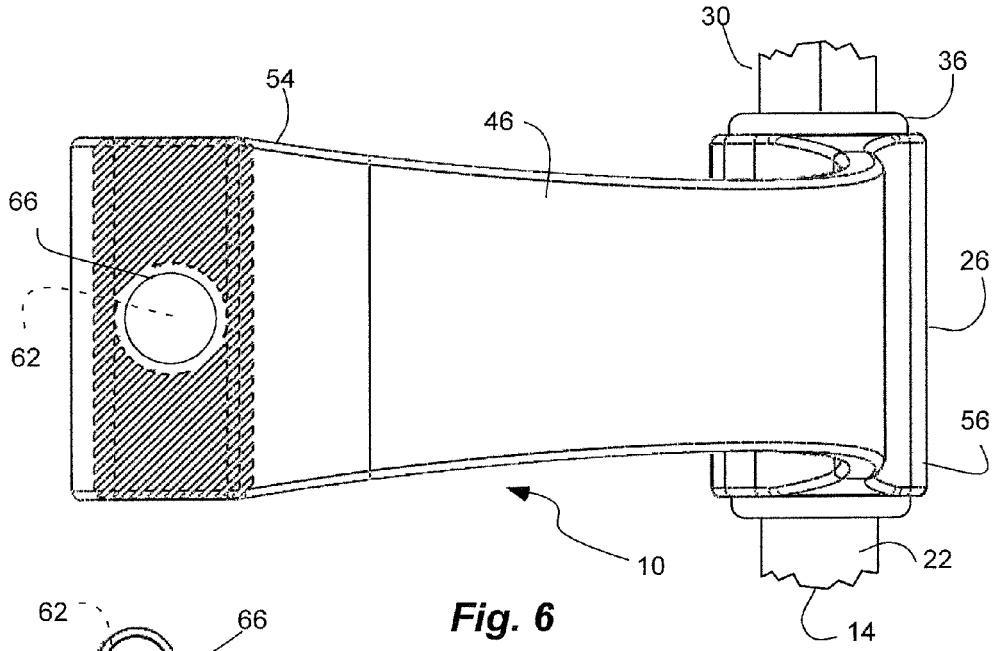
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Fig. 6

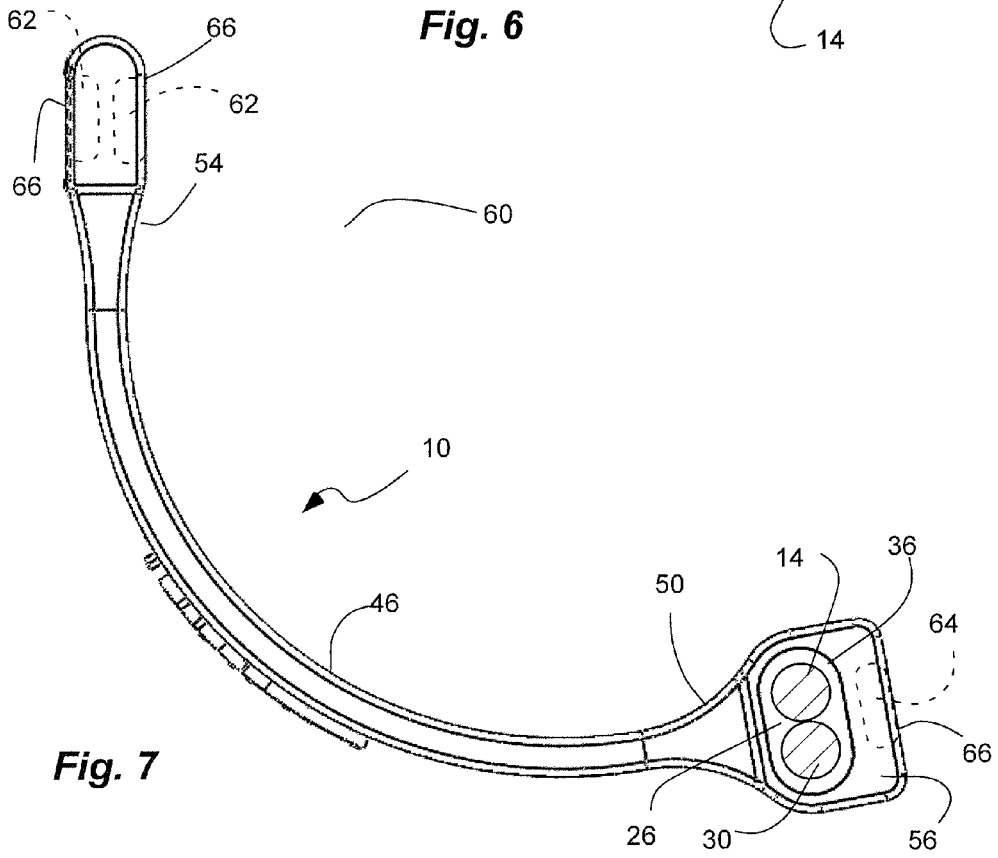
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Fig. 7

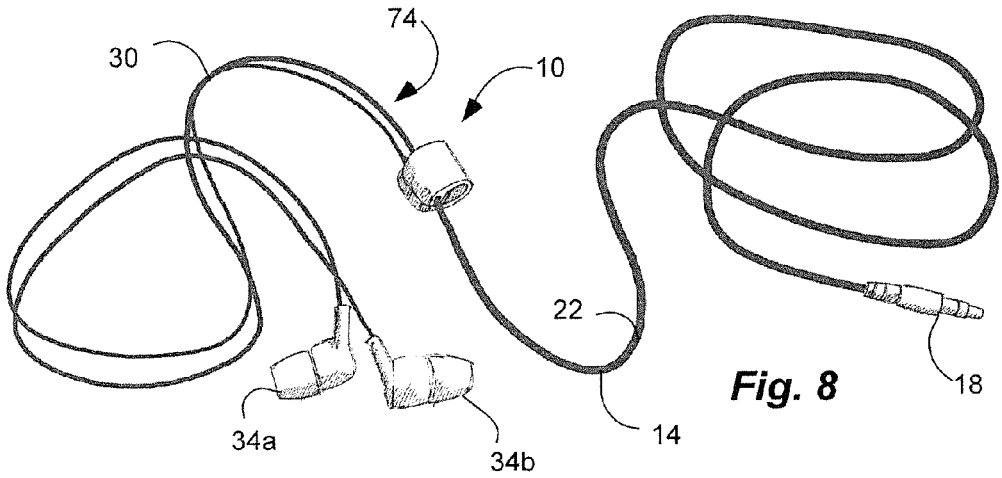

Fig. 8

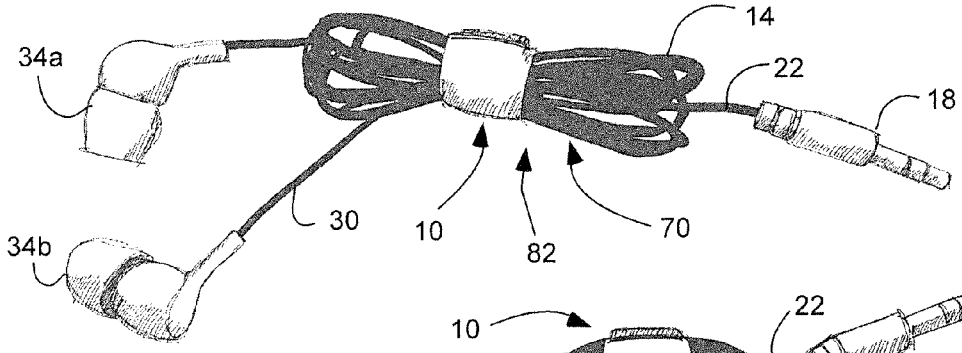

Fig. 9

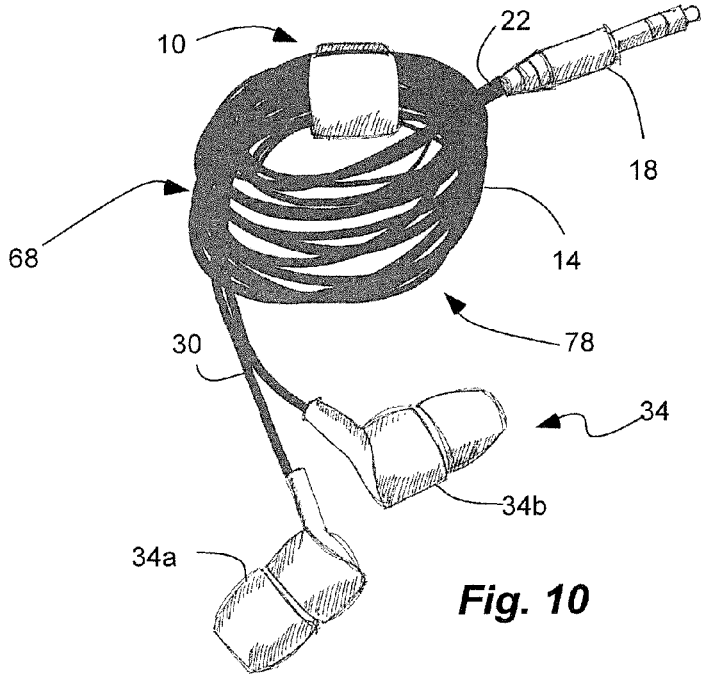

Fig. 10

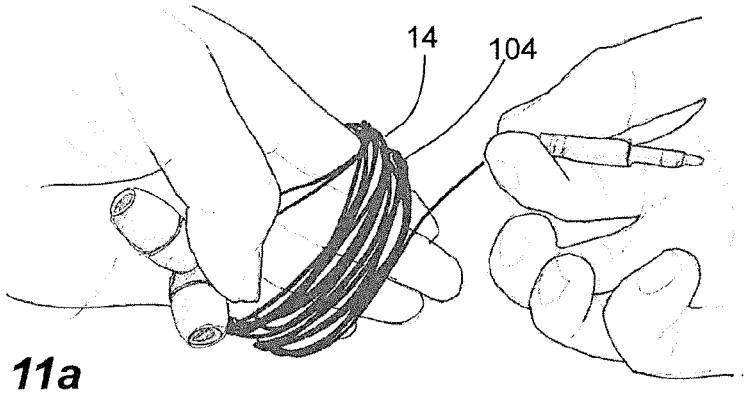

Fig. 11a

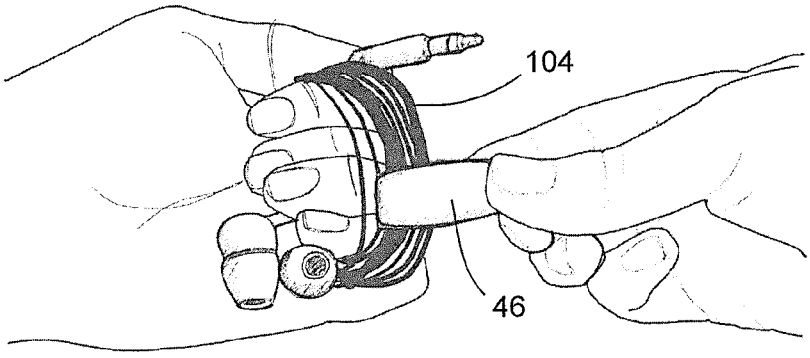

Fig. 11b

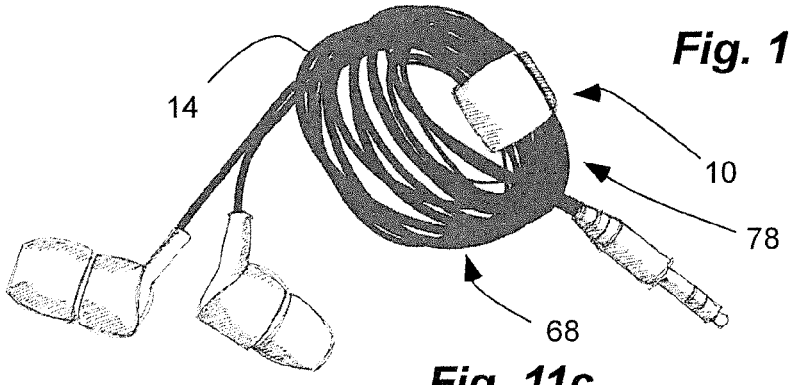

Fig. 11c

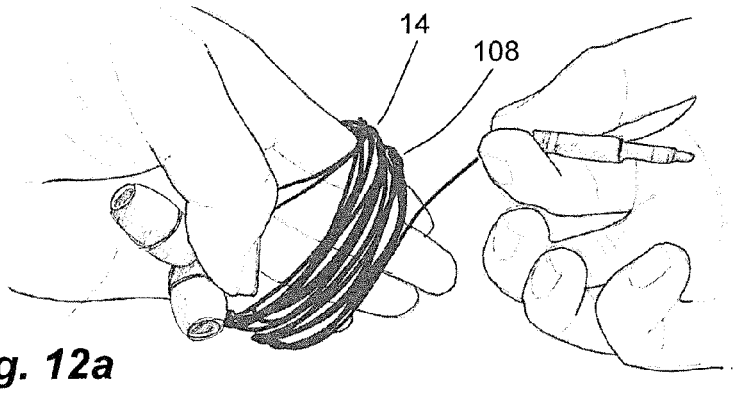

Fig. 12a

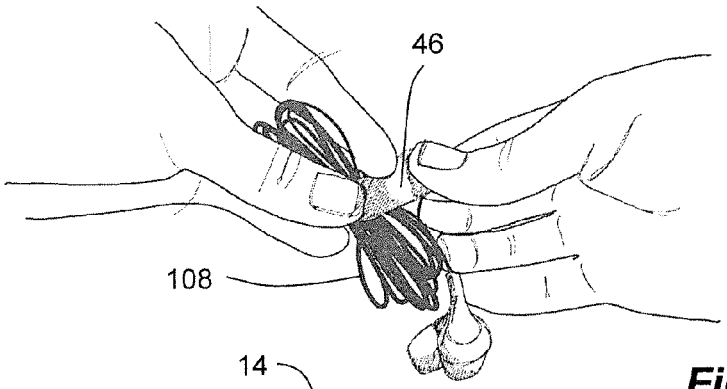

Fig. 12b

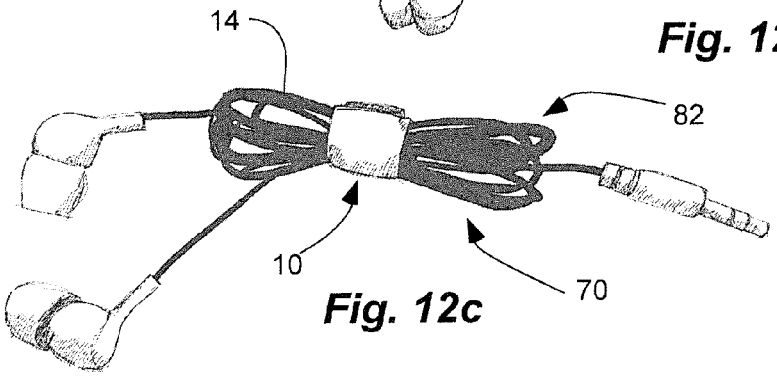

Fig. 12c

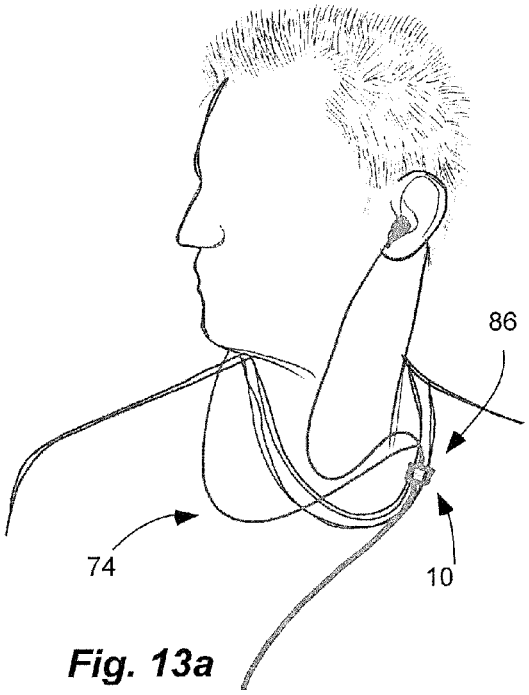

Fig. 13a

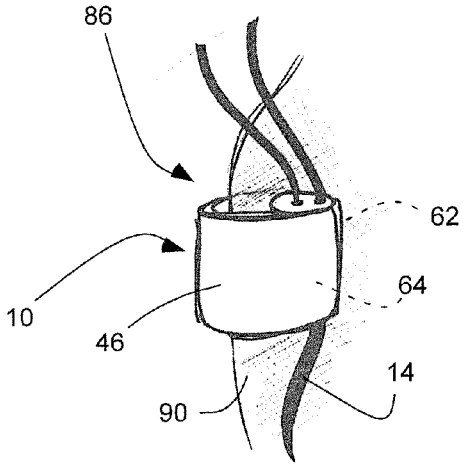

Fig. 13b

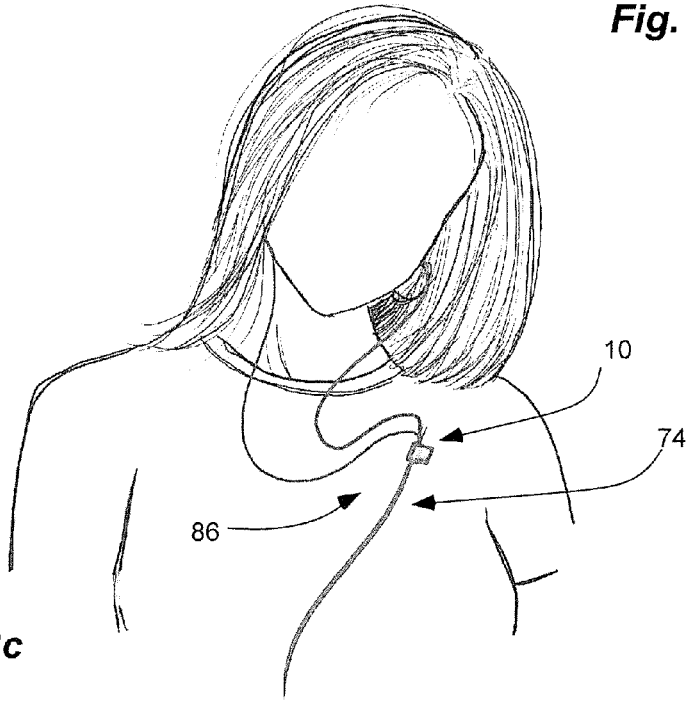

Fig. 13c

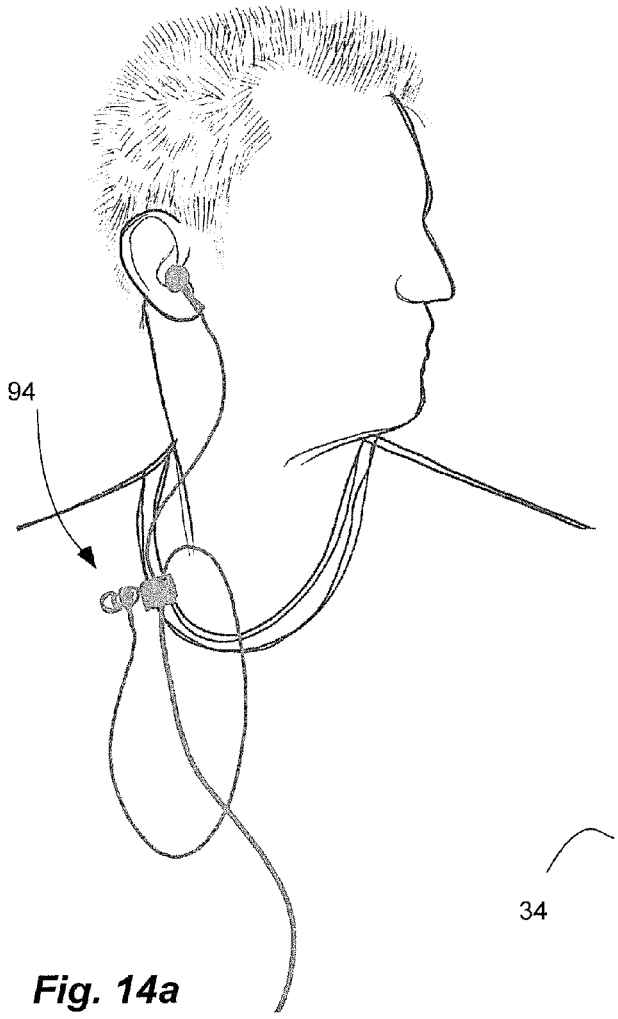

Fig. 14a

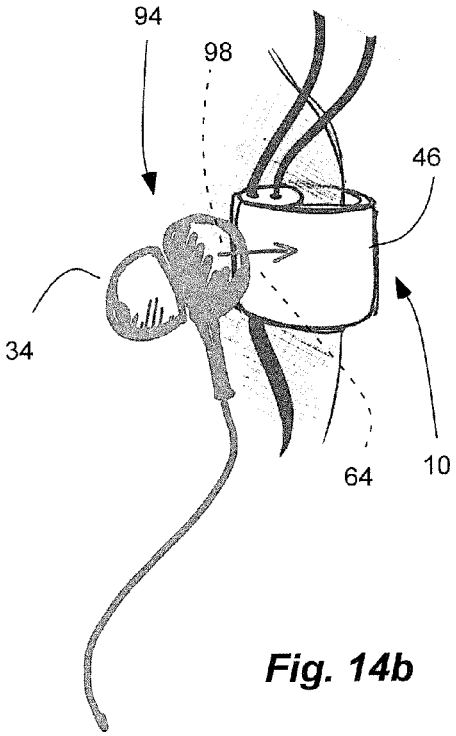

Fig. 14b

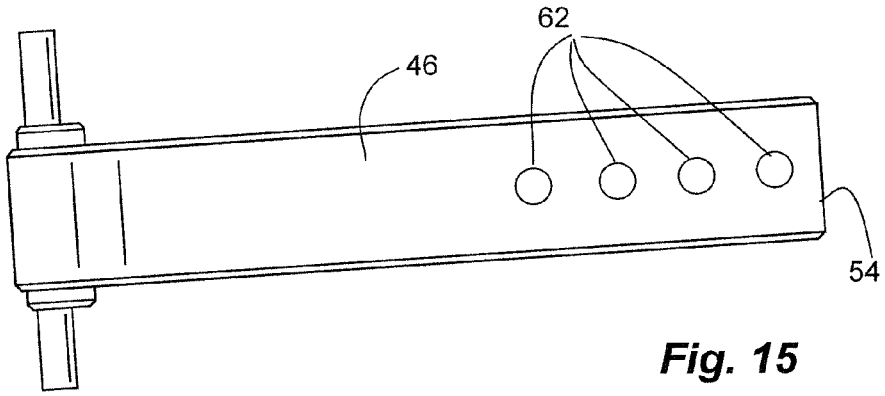

Fig. 15

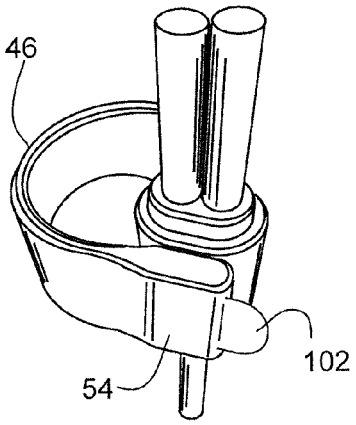

Fig. 16

IN-LINE CORD MANAGEMENT AND CLIP SYSTEM

PRIORITY CLAIM

Priority is claimed to U.S. Provisional Patent Application Ser. No. 62/031,464, filed Jul. 31, 2014, which is hereby incorporated herein by reference in its entirety.

BACKGROUND

1. Field of the Invention

The present invention relates generally to a cord management system for any type of cord, including for example earphone, earbuds, headphones, and the like.

2. Related Art

Earphones are a common accessory to many portable media players, such as cellular phones, tablets or tablet computers, and digital music players. Such earphones typically have a pair of cords or wires running from a headphone plug that plugs into a headphone jack, to a pair of earphones inserted in the ears of a user, or disposed on the ears of a user. The pair or cords or wires is commonly conjoined for a majority of the length, and splits at a junction into separate cords or wires for each of the earphones. Such wires are often capable of becoming tangled and knotted.

Similarly, other types of cords can similarly become tangled and knotted.

SUMMARY OF THE INVENTION

It has been recognized that it would be advantageous to develop a system and method to manage cords or wires. In addition, it has been recognized that it would be advantageous to develop a system and method to manage cords or wires associated with earphones and the like.

The invention provides a cord management system in combination with an audio cord. The audio cord comprises an audio plug, a pair of conjoined wires extending from the audio plug and separating at a junction into a pair of separate audio wires terminating at a pair of earbuds. The system comprises a sleeve circumscribing the junction of the audio cord. A flexible band extends from a proximal end at the sleeve to a distal free end. The flexible band has a collar at the proximal end with a bore therethrough receiving the sleeve and the junction. A free ferromagnetic button is embedded in the distal free end of the band. A fixed ferromagnetic button is embedded in the collar at the proximal end of the band. The band forms a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the audio cord. The system and the audio cord have a plurality of configurations, including: 1) a use configuration, with the audio cord extending a longer length, and with the ring free of the audio cord or with the ring having a lesser number of passes of the audio cord extending through the ring; 2) a loop storage configuration, with the audio cord extending a shorter length than the longer length, and wrapped into a loop with a greater number of passes of the audio cord extending though the ring than the lesser number of passes, and with the audio cord looping through and around the ring; 3) a bundle storage configuration, with the audio cord extending a shorter length than the longer length, and wrapped into a bundle with a greater number of passes of the audio cord extending through the ring than the lesser number of passes, and with the audio cord extending back and forth through the ring; 4) a clip configuration, with an article of clothing with the free ferromagnetic button of the distal free end of the band magnetically coupling to the fixed ferromagnetic button of the collar with the article of clothing therebetween; and 5) a single earbud configuration with a ferromagnetic element of one earbud of the pair of earbuds magnetically coupled to the fixed ferromagnetic button of the collar, or the free ferromagnetic button of the distal free end, or both. The proximal end of the band extends from one side of the collar, and the fixed ferromagnetic button is disposed in the collar on another side of the collar opposite the proximal end of the band.

In addition, the invention provides a splitter device for an audio cord. The device comprises a collar configured to be disposed at a junction of the audio cord with a pair of conjoined wires extending from an audio plug and separating at the collar into a pair of separate audio wires terminating in earbuds. A band extends from a proximal end at the collar to a distal free end. A free ferromagnetic button embedded in the distal free end of the band. A fixed ferromagnetic button embedded in the collar. The band forms a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the audio cord. The proximal end of the band extends from one side of the collar, and the fixed ferromagnetic button is disposed in the collar on another side of the collar opposite the proximal end of the band.

Furthermore, the invention provides a cord management system in combination with a cord. The system comprises a collar with a bore enclosing a portion of the cord. A flexible band extends from a proximal end at the collar to a distal free end. A free ferromagnetic button is embedded in the distal free end of the band. A fixed ferromagnetic button is embedded in the collar. The band forms a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the cord.

BRIEF DESCRIPTION OF THE DRAWINGS

Additional features and advantages of the invention will be apparent from the detailed description which follows, taken in conjunction with the accompanying drawings, which together illustrate, by way of example, features of the invention; and, wherein:

FIG. **1***a* is a perspective view of a cord management system in combination with a cord (such as an audio cord comprising an audio plug, a pair of conjoined wires extending from the audio plug and separating at a junction into a pair of earbuds) in accordance with an embodiment of the present invention, shown in a free or use or listening configuration, and with the band shown in a closed configuration;

FIG. **1***b* is a perspective view of the cord management system of FIG. **1***a*, shown in a use configuration, and with the band shown in the closed configuration;

FIG. **2** is a perspective view of the cord management system of FIG. **1***a*, with the band shown in the open configuration;

FIG. **3** is a side view of the cord management system of FIG. **1***a*, with the band shown in the open configuration;

FIG. **4** is a perspective view of a flexible band of the cord management system of FIG. **1***a*, shown in an open configuration;

FIG. **5** is a side view of the flexible band of the cord management system of FIG. **1***a*, shown in the open configuration;

FIG. **6** is a side view of the flexible band of the cord management system of FIG. **1***a*, shown in the open configuration;

FIG. **7** is a top view of the flexible band of the cord management system of FIG. **1***a*, shown in the open configuration;

FIG. **8** is a perspective view of the cord management system of FIG. **5***a*, shown in a use configuration with an audio cord extending a longer length, and with a ring formed by the band in the closed configuration free of the audio cord or with the ring having a lesser number of passes of the audio cord extending through the ring;

FIG. **9** is a perspective view of the cord management system of FIG. **5***a*, shown in a bundle storage configuration with the audio cord extending a shorter length than the longer length and wrapped into a bundle with a greater number of passes of the audio cord extending through the ring than the lesser number of passes, and with the audio cord extending back and forth through the ring;

FIG. **10** is a perspective view of the cord management system of FIG. **5***a*, shown in a loop storage configuration with the audio cord extending a shorter length than the longer length and wrapped into a loop with a greater number of passes of the audio cord extending though the ring than the lesser number of passes, and with the audio cord looping through and around the ring;

FIGS. **11***a-c* are perspective views of a method for managing an audio cord comprising an audio plug, a pair of conjoined wires extending from the audio plug and separating at a junction into a pair of wires terminating in earbuds in accordance with the present invention; with FIG. **11***a* showing forming the audio cord into a loop; FIG. **11***b* showing wrapping a flexible band around a portion of the loop by extending a distal free end through the loop and back towards a proximal end extending from a collar enclosing a portion of the audio cord at the junction; and FIG. **11***c* showing coupling the distal free end to the collar by magnetically coupling a free ferromagnetic button embedded in the distal free end of the band to a fixed ferromagnetic button embedded in the collar forming a ring enclosing and securing the portion of the loop, defining the loop storage configuration;

FIGS. **12***a-c* are perspective views of a method for managing an audio cord comprising an audio plug, a pair of conjoined wires extending from the audio plug and separating at a junction into a pair of wires terminating in earbuds in accordance with the present invention; with FIG. **12***a* showing forming the audio cord into a bundle; FIG. **12***b* showing wrapping a flexible band around a portion of the bundle by extending a distal free end around the bundle and back towards a proximal end extending from a collar enclosing a portion of the audio cord at the junction; and FIG. **12***c* showing coupling the distal free end to the collar by magnetically coupling a free ferromagnetic button embedded in the distal free end of the band to a fixed ferromagnetic button embedded in the collar forming a ring enclosing and securing the portion of the bundle, defining the bundle storage configuration;

FIGS. **13***a-c* are perspective views of the methods of FIGS. **11***a*-**12***c* further showing clipping the cord management system and/or band to an article of clothing by disposing the article of clothing between the distal free end of the band and the collar with the free ferromagnetic button of the distal free end of the band magnetically coupling to the fixed ferromagnetic button of the collar with the article of clothing therebetween;

FIGS. **14***a* and *b* are perspective views of the method of FIGS. **11***a*-**12***c* further showing securing an earbud of the pair of earbuds to the collar by magnetically coupling a ferromagnetic element of the earbud to the fixed ferromagnetic button of the collar;

FIG. **15** is a perspective view of another cord management system in accordance with another embodiment of the invention; and

FIG. **16** is a perspective view of another cord management system is accordance with another embodiment of the present invention.

Reference will now be made to the exemplary embodiments illustrated, and specific language will be used herein to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended.

DETAILED DESCRIPTION OF EXAMPLE EMBODIMENT(S)

Definitions

The term "ferromagnetic" is used herein to refer to a material or element that has magnetic properties and/or an ability to magnetically couple, either by being magnetic, or being magnetically attracted to a magnet (such as by containing iron) such that one ferromagnetic material or element is magnetically attracted to another ferromagnetic material or element. Thus, a ferromagnetic button is a magnet or is magnetic, such as a permanent magnet, or is attracted to magnets, such as by containing iron.

DESCRIPTION

As illustrated in FIGS. **1**-**14***b*, a cord management system, indicated generally at **10**, and methods for managing a cord, such as an audio cord, indicated generally at **14**, in an example implementation in accordance with the invention are shown. In one aspect, the cord management system **10** can be part of an audio cord **14** comprising an audio plug **18** (FIGS. **8**-**10**), a pair of conjoined wires **22** extending from the audio plug and separating at a junction **26** into a pair of separate audio wires **30** terminating at earbuds **34** (or **34***a* and **34***b*). In another aspect, the cord management system can be part of an audio cord similar to that described above, but with the audio cord extending as a single wire, or pair of conjoined wires, to a first earbud, and wire extending from the first earbud to a second earbud. Thus, the conjoined wires can split at the first earbud. The cord management system **10** can be used to manage the cord **14**, and can resist tangling of the cord.

The cord management system can comprise a sleeve **36** carried by the cord, such as the audio cord **14**, and circumscribing the junction **26** of the audio cord. In one aspect, the collar can be fixed to the cord. In another aspect, the collar can be slidably disposed on the cord. In another aspect, the collar can be removably coupled or clipped to the cord. The sleeve **36** can be rigid and can have a bore therethrough for receiving the audio cord **14**. The sleeve can circumscribe the junction **26** to resist separation of the conjoined wires **22** when a user pulls on the separate audio wires **30**.

The cord management system **10** can comprise a splitter **38** for the audio cord **14** disposed at the junction **26**. The splitter **38** can have the sleeve **36** disposed at the junction **26** of the audio cord **14** with the pair of conjoined wires **22** extending from the audio plug **18** and separating at the sleeve **36** into the pair of separate audio wires **30** terminating in the earbuds **34**. The sleeve **26** can define the splitter **38**. Thus, the splitter **38** and/or the sleeve **36** can have a hollow or bore therethrough through which the audio cord **14** extends, and can have a single opening in one end for the pair of conjoined wires **22**,

and a pair of openings in the other end for the pair of separate audio wires **30**. The sleeve **36** can enclose a portion of the audio cord at the junction. Thus, the splitter and/or the sleeve are joined to or attached to the audio cord. In one aspect, the sleeve can be fixed to the cord. In another aspect, the sleeve and/or the splitter can be electrically coupled to the audio cord, and can comprise a microphone and/or volume control buttons. In another aspect, the sleeve can be slidably attached to the cord. In another aspect, the sleeve can be removably coupled or clipped to the cord, and can be removed and used with other cords.

The cord management system **10** can comprise a flexible band **46** that can extend from a proximal end **50** at the sleeve or junction to a distal free end **54**. The flexible band **46** can have a collar **56** at the proximal end with a bore therethrough receiving the sleeve and the junction. The collar **56** and the band **46** can be integrally formed at the same time and of the same material. In one aspect, the material can be a flexible material, such as a rubber or silicone material. The band **46** can be flexible and bendable. The band **46** can be flexible to form a ring **58** (FIG. **1***a*) with the distal free end folded back against the collar **56** or the proximal end **50**. The band can be flexible the bend outwardly from the collar to form an opening **60** (FIG. **7**) to the ring.

In another aspect, the material can be a flexible and resilient material, such as a plastic or other elastomer. The material can be elastic. In one aspect, the band can be initially formed in a closed configuration or ring configuration with the distal free end of the band proximal the collar. Thus, the band can form the ring and can be biased (or have an initial unstressed at rest configuration) into the closed configuration and into the ring by the resiliency of the material. The band can have an open configuration where the distal free end of the band is separated from the collar, and the band is under stress or forms a spring element moved to the open configuration by the application of an applied force. In another aspect, the band can have the opposite configuration, i.e. the band can be initially formed in the open configuration so that the band can be biased (or have an initial unstressed at rest configuration) into the open configuration. The band can have a closed configuration with the band under stress and held by the ferromagnetic buttons in the closed configuration. In another aspect, the band can be initially formed in an open configuration in an arc or straight line so that the band can be biased open, and can be held closed by the magnets. Thus, the band can snap open when the ferromagnetic buttons are released.

The collar and the band can have a height along the cord to facilitate grasping with a user's fingers. In one aspect, the band can wrap multiple times or rotations to form the ring. In another aspect, the band can wrap less than one full rotation. In one aspect, the distal free end **54** of the band **46** can be enlarged with an enlarged cross-section with respect to an intermediate portion of the band **46** between the distal free end **54** and the proximal end **50**. In one aspect, the distal free end **54** can be thicker than the intermediate portion. In another aspect, the distal free end **54** can be higher or taller than the intermediate end. The enlarged distal free end can facilitate grasping and manipulation during use, and can direct bending and flexing to the intermediate portion of the band.

A free ferromagnetic button **62** can be embedded in the distal free end **54** of the band **46**; while a fixed ferromagnetic button **64** (FIG. **7**) can be embedded in the collar **56** or proximal end **50**. In one aspect, the buttons **62** and **64** can be completely embedded within the material of the collar **56** or the band **46**. The band **46** and/or the collar **56** can include indicia **66** to indicate the location of the buttons **62** and **64**, and thus an attachment location or point. In another aspect, the buttons can be partially embedded, and can have a portion thereof exposed through the band and/or the collar. The term "ferromagnetic" is used herein to refer to a material or element that has magnetic properties and/or an ability to magnetically couple, either by being magnetic, or being magnetically attracted to a magnet (such as by containing iron) such that one ferromagnetic material or element is magnetically attracted to another ferromagnetic material or element. Thus, a ferromagnetic button is a magnet or is magnetic, such as a permanent magnet, or is attracted to magnets, such as by containing iron. In one aspect, both of the buttons can be magnets (and thus both buttons are ferromagnetic). In another aspect, one of the buttons can be a magnet, while the other button contains iron (and thus both buttons are ferromagnetic).

In one aspect, the free distal end **54** of the band **46** can have a single ferromagnetic button **62**, such as a button containing iron, while the fixed ferromagnetic button **64** can be a magnet. Thus, the band can be wrapped around an axis of the cord **14**, the collar **56**, and/or the sleeve **42** in either direction. In another aspect, the free distal end **54** of the band **46** can have a pair of free ferromagnetic buttons **62**, one on each side thereof, that can be magnets, while the fixed ferromagnetic button **64** can be a button containing iron. Thus, the band can be wrapped around an axis of the cord **14**, the collar **56**, and/or the sleeve **42** in either direction. Thus, the system or band can be multi-directional, or bi-directional. The bi-direction forming of the ring can allow the cord management system to be used with right or left button down shirts, etc., as described in greater detail below.

In one aspect, the proximal end **50** of the band **46** can extend from one side of the collar **56**, and the fixed ferromagnetic button **64** can disposed in the collar **56** on another side of the collar opposite the proximal end of the band. Thus, the collar **56** is disposed between the ends **50** and **54** of the band **46** when closed, and the collar **56** forms a portion of the ring **58** along with the collar. Having the fixed ferromagnetic button **64** and the proximal end **50** of the band **54** on opposite sides of the collar **56** can help form and define the ring **58**. The ring can define a space to receive the audio cord, and/or an article of clothing, as described below.

In one aspect, the distal free end **54** of the band **46** can have a flat surface, and the another side of the collar **56** opposite the proximal end **50** of the band **46** can have a flat surface to which the flat surface of the distal free **54** end of the band **46** abuts in the closed configuration forming the loop **58**. The flat surfaces can maximize the magnetic grip between the ferromagnetic buttons **62** and **64**.

The band **46** can form a ring **58** with the free ferromagnetic button **62** of the distal free end **54** of the band **46** magnetically coupled to the fixed ferromagnetic button **64** of the collar **56** for enclosing and securing a portion of a loop **68** (FIG. **10**) or a bundle **70** (FIG. **9**) formed by the audio cord **14** or portion thereof.

The system and audio cord can have a plurality of configuration, including: a use or free or listening configuration **74** (FIG. **8**); a loop storage configuration **78** (FIGS. **10** and **11***c*); and a bundle storage configuration **82** (FIGS. **9** and **12***c*). In the use configuration **74** (FIG. **8**), the audio cord **14** can extend a longer length (i.e. between the earbuds **34** in the user's ears and the audio jack **18** at the portable media player), and the ring **58** can be free of the audio cord **14**, or the ring **58** can have a lesser number of passes of the audio cord **14** extending through the ring (i.e. a lesser portion of the cord can be looped or bundled in the ring or band while the user listens). In the loop storage configuration **78** (FIGS. **10** and **11***c*), the audio cord **14** can extend a shorter length (between

the earbuds **34** and the audio jack **18**) than the longer length, and can be wrapped into a loop **68** (FIG. **10**) with a greater number of passes of the audio cord **14** extending though the ring **58** than the lesser number of passes of the use configuration, and the audio cord looping through and around the ring. In the bundle storage configuration **82** (FIGS. **9** and **12***c*), the audio cord **14** can extending a shorter length than the longer length (between the earbuds **34** and the audio jack **18**) and can be wrapped into a bundle **70** (FIG. **9**) with a greater number of passes of the audio cord **14** extending through the ring **58** than the lesser number of passes of the use configuration, and the audio cord extending back and forth through the ring.

In addition, the system and audio cord can further have a clip configuration **86** (FIGS. **13***a-c*) with an article of clothing **90** with the free ferromagnetic button **62** of the distal free end **54** of the band **46** magnetically coupling to the fixed ferromagnetic button **64** of the collar **56** through the article of clothing **90**. The collar **56** can be clipped to an article of clothing **90** at an edge of the clothing, such as at a seam or lapel or neckline, as shown in FIGS. **13***a* and **13***c*; or at a pinch or double up of the article of clothing, as shown in FIG. **13***b*.

In addition, the system and audio cord can further have a single earbud configuration **94** (FIGS. **14***a* and **14***b*) with a ferromagnetic element **98** of one earbud **34** of the earbuds magnetically coupled to the fixed ferromagnetic button **64** of the collar **56**, or the free ferromagnetic element **63** of the band **46**. In one aspect, the ferromagnetic element **98** of the earbud **34** can be a magnet of the speaker or driver in the earbud. In another aspect, the ferromagnetic element of the earbud can be a separate ferromagnetic element from the magnet of the speaker or driver in the earbud.

Furthermore, each of the pair of earbuds can have a ferromagnetic element therein so that the pair of earbuds can be magnetically coupled to each other, and/or to the collar or splitter.

In one aspect, a plurality of ferromagnetic buttons **62** can be arrayed along at least a portion of a length of the band **46** from the distal free end inwardly to form a plurality of different sized rings, as shown in FIG. **15**. Thus, the size of the ring can be adjusted to accommodate more or less wraps of the audio cord.

In another aspect, a tab or flap **102** can extend from the distal free end **54** of the band **46** and can be free of the free ferromagnetic buttons therein and free of the collar, as shown in FIG. **16**. Thus, the tab or flap can be grasped by the user to facilitate separation of the ferromagnetic buttons.

A method for managing a cord, such as an audio cord **14** comprising an audio plug **18**, a pair of conjoined wires **22** extending from the audio plug **18** and separating at a junction **26** into a pair of wires **30** terminating in earbuds **34**, comprises:

a) forming the audio cord **14** into a loop **104** (as shown in FIG. **11***a* such as by looping the audio cord around the fingers) or a bundle **108** (as shown in FIG. **12***a*, again such as by looping the audio cord around the fingers or wrapping the cord back and forth over itself);

b) wrapping a flexible band **46** around a portion of the loop **104** or the bundle **108** by extending a distal free end **54** through (FIG. **7***b*) or around (FIG. **8***b*) the loop or bundle and back towards a proximal end **50** extending from a collar **56** enclosing a portion of the audio cord **14** at the junction **26**, the collar **56** (and/or sleeve **42**) defining a splitter **38** where the audio cord separates from the conjoined wires **22** to the pair of wires **30**;

c) coupling the distal free end **54** of the band **46** to the collar **56** by magnetically coupling a free ferromagnetic button **62** embedded in the distal free end **54** of the band **46** to a fixed ferromagnetic button **64** embedded in the collar **56** forming a ring **58** enclosing and securing the portion of the loop **104** or bundle **108** (forming the loop storage configuration **78** as shown in FIGS. **10** and **11***c*, or the bundle storage configuration **82** as shown in FIGS. **9** and **12***c*);

d) uncoupling the free ferromagnetic button **62** of the distal free end **54** of the band **46** from the fixed ferromagnetic button **64** of the collar **56**, and removing the audio cord **14** from the ring **58** or band **46** (to form the use configuration **74** as shown in FIG. **8**);

e) clipping the splitter **38** (or the flexible band **46** and the junction **26**) to an article of clothing **90** by disposing the article of clothing **90** between the distal free end **54** of the band **46** and the collar **42** with the free ferromagnetic button **62** of the distal free end **54** of the band **46** magnetically coupling to the fixed ferromagnetic button **64** of the collar **56** through the article of clothing **90** (forming the clip configuration **86** as shown in FIGS. **13***a-c*);

f) securing an earbud **34** of the pair of earbuds to the collar **56** or the distal free end **54** by magnetically coupling a ferromagnetic element **98** of the earbud to the fixed ferromagnetic button **64** of the collar **42**, or the free ferromagnetic button **62** of the band **54** (forming the single earbud configuration **94** as shown in FIGS. **14***a* and **14***b*).

In addition, the method can include coupling the pair of earbuds **34** together by magnetically coupling the ferromagnetic element of one earbud of the pair of earbuds to a ferromagnetic element of another earbud of the pair of earbuds.

The sleeve **42** can be taller or height than the collar **56** so that the sleeve extends beyond the collar **56** along an axis of the cord, sleeve and/or collar. In one aspect, the sleeve can be a spool and can have a pair of enlarged flanges circumscribing the collar or spool at opposite ends thereof, defining a narrower neck or annular groove therebetween. The sleeve can be rigid and can be fixed to the junction of the audio cord, defining a splitter. The collar **56**, or bore thereof, can receive the narrower neck or annular groove between the pair of enlarged flanges of the spool or sleeve. The collar can be formed of a soft flexible silicone that allows the collar to flex or bend, and the bore or collar to expand to be inserted over the enlarged flange.

Although described with respect to an audio cord, the cord management system and method, and splitter or collar and band, described above can also be used with other cords, including by way of example, video cords or wires, rope, string, etc.

While the forgoing examples are illustrative of the principles of the present invention in one or more particular applications, it will be apparent to those of ordinary skill in the art that numerous modifications in form, usage and details of implementation can be made without the exercise of inventive faculty, and without departing from the principles and concepts of the invention. Accordingly, it is not intended that the invention be limited, except as by the claims set forth below.

What is claimed is:

1. A cord management system in combination with an audio cord comprising an audio plug, a pair of conjoined wires extending from the audio plug and separating at a junction into a pair of separate audio wires terminating at a pair of earbuds, the system comprising:

a) a sleeve circumscribing the junction of the audio cord;

b) a flexible band extending from a proximal end at the sleeve to a distal free end;

c) the flexible band having a collar at the proximal end with a bore therethrough receiving the sleeve and the junction;

d) a free ferromagnetic button embedded in the distal free end of the band;

e) a fixed ferromagnetic button embedded in the collar at the proximal end of the band;

f) the band forming a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the audio cord;

g) the system and the audio cord having a plurality of configurations, including:

i) a use configuration with the audio cord extending a longer length, and with the ring free of the audio cord or with the ring having a lesser number of passes of the audio cord extending through the ring;

ii) a loop storage configuration with the audio cord extending a shorter length than the longer length, and wrapped into a loop with a greater number of passes of the audio cord extending though the ring than the lesser number of passes, and with the audio cord looping through and around the ring;

iii) a bundle storage configuration with the audio cord extending a shorter length than the longer length, and wrapped into a bundle with a greater number of passes of the audio cord extending through the ring than the lesser number of passes, and with the audio cord extending back and forth through the ring;

iv) a clip configuration with an article of clothing with the free ferromagnetic button of the distal free end of the band magnetically coupling to the fixed ferromagnetic button of the collar with the article of clothing therebetween; and

v) a single earbud configuration with a ferromagnetic element of one earbud of the pair of earbuds magnetically coupled to the fixed ferromagnetic button of the collar, or the free ferromagnetic button of the distal free end, or both; and

h) the proximal end of the band extending from one side of the collar, and the fixed ferromagnetic button being disposed in the collar on another side of the collar opposite the proximal end of the band.

2. The combination in accordance with claim **1**, wherein the collar encloses a portion of the audio cord at the junction defining a splitter where the audio cord separates from the conjoined wires to the pair of wires.

3. The combination in accordance with claim **1**, further comprising:

the distal free end of the band having a flat surface; and

the another side of the collar opposite the proximal end of the band having a flat surface to which the flat surface of the distal free end of the band abuts.

4. The combination in accordance with claim **1**, wherein the distal free end of the band is enlarged with an enlarged cross-section with respect to an intermediate portion of the band between the distal free end and the proximal end.

5. The combination in accordance with claim **1**, further comprising:

a plurality of ferromagnetic buttons arrayed along at least a portion of a length of the band to form a plurality of different sized rings.

6. The combination in accordance with claim **1**, further comprising:

the band being formed of flexible and resilient material and initially formed in a closed configuration with the distal free end of the band proximal the collar, and forming the ring and biased into the closed configuration and into the ring by the resiliency of the material, and having an open configuration where the distal free end of the band is separated from the collar.

7. The combination in accordance with claim **1**, wherein the collar and band are integrally formed at the same time and of the same material.

8. The combination in accordance with claim **1**, further comprising:

a tab or flap extending beyond the distal free end of the band and free of the free ferromagnetic buttons therein and free of the collar.

9. A method for managing the audio cord with the cord management system in accordance with claim **1**, the method comprising:

a) forming the audio cord into the loop or the bundle;

b) wrapping the flexible band around a portion of the loop or the bundle by extending the distal free end through or around the loop or the bundle and back towards the collar;

c) coupling the distal free end to the collar by magnetically coupling the free ferromagnetic button embedded in the distal free end of the band to the fixed ferromagnetic button embedded in the collar, forming the ring enclosing and securing the portion of the loop or the bundle;

d) uncoupling the free ferromagnetic button of the distal free end of the band from the fixed ferromagnetic button of the collar, and removing the audio cord from the ring or the band;

e) clipping the flexible band and the junction to the article of clothing by disposing the article of clothing between the distal free end of the band and the collar with the free ferromagnetic button of the distal free end of the band magnetically coupling to the fixed ferromagnetic button of the collar with the article of clothing therebetween; and

f) securing one earbud of the pair of earbuds to the collar or the distal free end by magnetically coupling a ferromagnetic element of the earbud to the fixed ferromagnetic button of the collar, or the free ferromagnetic button of the distal free end, or both.

10. The method in accordance with claim **9**, further comprising:

coupling the pair of earbuds together by magnetically coupling the ferromagnetic element of one earbud of the pair of earbuds to a ferromagnetic element of another earbud of the pair of earbuds.

11. A splitter device for an audio cord, the device comprising:

a) a collar configured to be disposed at a junction of the audio cord with a pair of conjoined wires extending from an audio plug and separating at the collar into a pair of separate audio wires terminating in earbuds;

b) a band extending from a proximal end at the collar to a distal free end;

c) a free ferromagnetic button embedded in the distal free end of the band;

d) a fixed ferromagnetic button embedded in the collar;

e) the band forming a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the audio cord; and

f) the proximal end of the band extending from one side of the collar, and the fixed ferromagnetic button being dis-

posed in the collar on another side of the collar opposite the proximal end of the band.

12. The device in accordance with claim **11**, further comprising:

the system and the audio cord having a plurality of configurations, including:

i) a use configuration with the audio cord extending a longer length, and with the ring free of the audio cord or with the ring having a lesser number of passes of the audio cord extending through the ring;

ii) a loop storage configuration with the audio cord extending a shorter length than the longer length, and wrapped into a loop with a greater number of passes of the audio cord extending though the ring than the lesser number of passes, and with the audio cord looping through and around the ring;

iii) a bundle storage configuration with the audio cord extending a shorter length than the longer length, and wrapped into a bundle with a greater number of passes of the audio cord extending through the ring than the lesser number of passes, and with the audio cord extending back and forth through the ring;

iv) a clip configuration with an article of clothing with the free ferromagnetic button of the distal free end of the band magnetically coupling to the fixed ferromagnetic button of the collar with the article of clothing therebetween; and

v) a single earbud configuration with a ferromagnetic element of one earbud of the pair of earbuds magnetically coupled to the fixed ferromagnetic button of the collar, or the free ferromagnetic button of the distal free end, or both.

13. The device in accordance with claim **11**, wherein the collar encloses a portion of the audio cord at the junction defining a splitter where the audio cord separates from the conjoined wires to the pair of wires.

14. The device in accordance with claim **11**, further comprising:

the distal free end of the band having a flat surface; and

the another side of the collar opposite the proximal end of the band having a flat surface to which the flat surface of the distal free end of the band abuts.

15. The device in accordance with claim **11**, wherein the distal free end of the band is enlarged with an enlarged cross-section with respect to an intermediate portion of the band between the distal free end and the proximal end.

16. The device in accordance with claim **11**, further comprising:

a plurality of ferromagnetic buttons arrayed along at least a portion of a length of the band to form a plurality of different sized rings.

17. The device in accordance with claim **11**, further comprising:

the band being formed of flexible and resilient material and initially formed in a closed configuration with the distal free end of the band proximal the collar, and forming the ring and biased into the closed configuration and into the ring by the resiliency of the material, and having an open configuration where the distal free end of the band is separated from the collar.

18. The device in accordance with claim **11**, wherein the collar and band are integrally formed at the same time and of the same material.

19. The device in accordance with claim **11**, further comprising:

a tab or flap extending beyond the distal free end of the band and free of the free ferromagnetic buttons therein and free of the collar.

20. A cord management system in combination with a cord, the system comprising:

a) a collar with a bore enclosing a portion of the cord;

b) a flexible band extending, from a proximal end at the collar to a distal free end;

c) a free ferromagnetic button embedded in the distal free end of the band;

d) a fixed ferromagnetic button embedded in the collar;

e) the band forming a ring with the free ferromagnetic button of the distal free end of the band magnetically coupled to the fixed ferromagnetic button of the collar for enclosing and securing a portion of a loop or a bundle formed by the cord; and

wherein the collar encloses a portion of an audio cord at the junction defining a splitter terminating at a pair of earbuds.

21. The system in accordance with claim **20**, further comprising:

the proximal end of the band extending from one side of the collar, and the fixed ferromagnetic button being disposed in the collar on another side of the collar opposite the proximal end of the band.

22. The system in accordance with claim **21**, further comprising:

the distal free end of the band having a flat surface; and

the another side of the collar opposite the proximal end of the band having a flat surface to which the flat surface of the distal free end of the band abuts.

23. The system in accordance with claim **20**, further comprising:

the system having a plurality of configurations, including:

i) a use configuration with the cord extending a longer length, and the ring free of the cord or the ring having a lesser number of passes of the cord extending through the ring;

ii) a loop storage configuration with the cord extending a shorter length than the longer length, and wrapped into a loop with a greater number of passes of the cord extending though the ring than the lesser number of passes, and the cord looping through and around the ring; and

iii) a bundle storage configuration with the cord extending a shorter length than the longer length, and wrapped into a bundle with a greater number of passes of the cord extending through the ring than the lesser number of passes, and the cord extending back and forth through the ring.

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